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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: TAKIAR, Hem P.

Attorney Docket No.: 1901-P014

Patent: 7,094,633

Issued: August 22, 2006

Title: METHOD FOR EFFICIENTLY
PRODUCING REMOVABLE PERIPHERAL
CARDS

**REQUEST FOR CERTIFICATE OF CORRECTION
OF OFFICE MISTAKE
(35 U.S.C. §254, 37 CFR §1.322)**

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450
Attn: Certificate of Correction

Certificate
MAR 09 2009
of Correction

Dear Sir:

Attached is Form PTO-1050 (Certificate of Correction) at least one copy of which is suitable for printing. The errors together with the exact page and line number where the errors are shown correctly in the application file are as follows:

Col. 11, line 62 (claim 17, line 3), "memory cards" should be --instances--.

Col. 13, line 39 (claim 32, line 2), "pres sure" should be --pressure--.

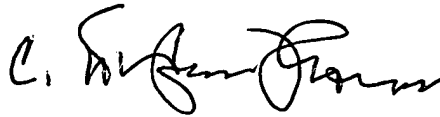
Patentee hereby requests expedited issuance of the Certificate of Correction because the error lies with the Office and because the error is clearly disclosed in the records of the Office. As required for expedited issuance, enclosed is documentation

MAR 10 2009

that unequivocally supports the patentee's assertion without needing reference to the patent file wrapper.

It is noted that the above-identified errors were printing errors that apparently occurred during the printing process. Accordingly, it is believed that no fees are due in connection with the filing of this Request for Certificate of Correction. However, if it is determined that any fees are due, the Commissioner is hereby authorized to charge such fees to Deposit Account 504298 (Order No. 1901-P014).

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'C. Douglass Thomas', with a stylized, cursive script.

C. Douglass Thomas
Registration No. 32,947

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**Page 1 of 1

PATENT NO. : 7,094,633

APPLICATION NO.: 10/602,373

ISSUE DATE : August 22, 2006

INVENTOR(S) : TAKIAR, Hem P.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Col. 11, line 62 (claim 17, line 3), "memory cards" should be --instances--.

Col. 13, line 39 (claim 32, line 2), "pres sure" should be --pressure--.

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Technology & Innovation Law Group. PC
19200 Stevens Creek Blvd., Ste. 240
Cupertino, CA 95014

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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**UNITED STATES PATENT AND TRADEMARK OFFICE
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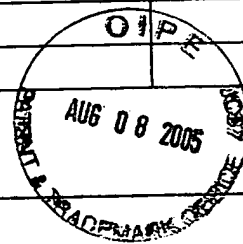
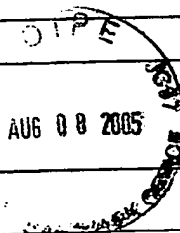
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

MAR 10 2009

Docket #	SDK1P014	By:	CDT/klg	Date of this mailing:	August 4, 2005
Appl'n #:	10/602,373	Filing Date:	06/23/03	Express Mail #	
Inv(s)	Hem P. Takiar				
Title:	METHOD FOR EFFICIENTLY PRODUCING REMOVABLE PERIPHERAL CARDS				

The following have been received in the U.S. Patent Office on the date stamped hereon:

Item	Description	# Pgs
1.	Amendment Transmittal	01
2.	Amendment B	11
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		



BEYER WEAVER & THOMAS, LLP
 SEEN/CONFIRMED
 BY DOCKETING DEPT.
 DATE: 9/2 BY: CN

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Hem P. Takiar

Attorney Docket No.: SDK1P014

Application No.: 10/602,373

Examiner: Maldonado, J.

Filed: June 23, 2003

Group: 2823

Title: METHOD FOR EFFICIENTLY
PRODUCING REMOVABLE PERIPHERAL
CARDS

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as first-class mail on August 4, 2005 in an envelope addressed to the Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450.

Signed: _____

Kristina Gomez

AMENDMENT B TRANSMITTAL

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

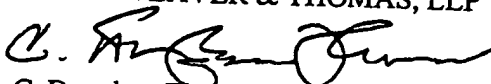
Transmitted herewith is an Amendment in the above-identified application.

The fee has been calculated as shown below.

	Claims After Amendment		Highest Previously Paid For	Present Extra	Small Entity Rate Fee	Large Entity Rate Fee
Total Claims	51	MINUS	54	00	x 25 =	x 50 =
Independent Claims	06	MINUS	06	00	x 100 =	x 200 =
Multiple Dependent Claim Present and Fee Not Previously Paid					\$180.00	\$360.00
Total					\$	\$

- ☐ Applicant(s) hereby petition for a _____ month extension(s) of time to respond to the aforementioned Office Action.
- ☒ Applicant(s) believe that no (additional) Extension of Time is required; however, if it is determined that such an extension is required, Applicant(s) hereby petition that such an extension be granted and authorize the Commissioner to charge the required fees for an Extension of Time under 37 CFR 1.136 to Deposit Account No. 500388.
- ☐ Enclosed is our Check No. _____ in the amount of \$ _____ to cover the additional independent claims fee.
- ☒ Please charge the required fees, or any additional fees required to facilitate filing the enclosed response, to Deposit Account No. 500388 (Order No. SDK1P014).

Respectfully submitted,
BEYER WEAVER & THOMAS, LLP


C. Douglass Thomas
Reg. No. 32,947

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Hem P. Takiar

Attorney Docket No.: SDK1P014/370

Application No.: 10/602,373

Examiner: Maldonado, J.

Filed: June 23, 2003

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CERTIFICATE OF MAILING

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Signed: 

Kristina Gomez

AMENDMENT B

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the Office Action dated June 28, 2005, please amend the above-identified patent application as follows:

Amendments to the Claims are reflected in the listing of claims which begin on page 2 of this paper.

Remarks/Arguments begin on page 11 of this paper.

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A method for concurrently forming a plurality of integrated circuit products, said method comprising:

providing a multi-instance leadframe or substrate having a plurality of instances;

attaching one or more dies to each of the instances on at least one side of the multi-instance leadframe or substrate;

electrically connecting each of the one or more dies to the respective instance of the leadframe or substrate;

thereafter encapsulating together the plurality of instances on the at least one side of the multi-instance leadframe or substrate with a molding compound; and

subsequently singulating each of the plurality of instances using at least non-linear shaping of at least one region of each of the plurality of instances, thereby forming the integrated circuit products,

wherein the non-linear shaping of each of the instances by said singulating is achieved through curvilinear or non-rectangular cutting during said singulating.

2. (Original) A method as recited in claim 1, wherein said electrically connecting includes at least wire bonding each of the one or more dies to the respective instance of the leadframe or substrate.

3. (Original) A method as recited in claim 1, wherein said encapsulating forms a molded panel.

4. (Original) A method as recited in claim 1, wherein said singulating is performed by a laser beam provided by a laser.

5. (Original) A method as recited in claim 1, wherein said singulating is performed by a high pressure water jet.

6. (Original) A method as recited in claim 5, wherein the water jet includes at least water and an abrasive material.

7. (Original) A method as recited in claim 1, wherein the substrate is a printed circuit board.

8. (Original) A method as recited in claim 1, wherein the passive components include at least one of a resistor and a capacitor.

9. (Original) A method as recited in claim 1, wherein the one or more dies are semiconductor dies.

10. (Original) A method as recited in claim 1, wherein the integrated circuit products are memory cards.

11. (Original) A method as recited in claim 1, wherein the integrated circuit products are removable, non-rectangular peripheral cards.

12. (Original) A method as recited in claim 1, wherein said method further comprises:

attaching, prior to said encapsulating, one or more passive components to each of the instances.

13. (Original) A method as recited in claim 1, wherein said method further comprises:

applying a mark to the molding compound for each of the plurality of instances.

14. (Original) A method as recited in claim 13, wherein the mark is a printed mark.

15. (Original) A method as recited in claim 1,

wherein said encapsulating forms a molded panel, and

wherein said singulating of each of the instances cuts the molded panel into a plurality of molded packages which are the integrated circuit products.

16. (Original) A method as recited in claim 15, wherein the molded packages are memory cards.

17. (Currently Amended) A method for concurrently forming a plurality of integrated circuit products, said method comprising:

providing a multi-instance leadframe or substrate having a plurality of instances;

attaching one or more dies to each of the instances on at least one side of the multi-instance leadframe or substrate;

electrically connecting each of the one or more dies to the respective instance of the leadframe or substrate;

thereafter encapsulating together the plurality of instances on the at least one side of the multi-instance leadframe or substrate with a molding compound;

subsequently singulating each of the plurality of instances using at least non-linear shaping of at least one region of each of the plurality of instances, thereby forming the integrated circuit products; and

applying a coating to each of the ~~memory cards~~ instances after said singulating.

18. (Currently Amended) A method for concurrently forming a plurality of integrated circuit products, said method comprising:

providing a multi-instance leadframe or substrate having a plurality of instances;

attaching one or more dies to each of the instances on at least one side of the multi-instance leadframe or substrate;

electrically connecting each of the one or more dies to the respective instance of the leadframe or substrate;

thereafter encapsulating together the plurality of instances on the at least one side of the multi-instance leadframe or substrate with a molding compound;

subsequently singulating each of the plurality of instances using at least non-linear shaping of at least one region of each of the plurality of instances, thereby forming the integrated circuit products; and

affixing an outer casing to each of the ~~memory cards~~ instances after said singulating.

19. (Cancelled).

20. (Previously Presented) A method as recited in claim 1, wherein said method further comprises:

electrically testing the instances is performed after said encapsulating and before said singulating.

21. (Previously Presented) A method for concurrently forming a plurality of integrated circuit products, said method comprising:

providing a multi-instance leadframe or substrate having a plurality of instances;

attaching one or more dies to each of the instances on at least one side of the multi-instance leadframe or substrate;

electrically connecting each of the one or more dies to the respective instance of the leadframe or substrate;

thereafter encapsulating together the plurality of instances on the at least one side of the multi-instance leadframe or substrate with a molding compound;

subsequently singulating each of the plurality of instances using at least non-linear shaping of at least one region of each of the plurality of instances, thereby forming the integrated circuit products; and

applying a coating to each of the instances after said singulating.

Claims 22-26. (Cancelled).

27. (Original) A method for concurrently forming a plurality of memory cards, each of the memory cards including at least a memory die and a controller die, said method comprising:

providing a multi-instance leadframe having a plurality of instances;

attaching the multi-instance leadframe on a removable tape;

placing die attach material on a portion of each of the instances of the multi-instance leadframe;

attaching the memory die to each of the instances via the die attach material corresponding to each of the instances;

affixing the controller die with respect to each of the instances;

electrically connecting each of the memory die and the controller die to the respective instances of the multi-instance leadframe;

thereafter encapsulating together the instances with a molding compound; and

subsequently singulating each of the instances using at least non-linear shaping of at least one region of each of the plurality of instances.

28. (Original) A method as recited in claim 27, wherein the removable tape is a polymer tape.

29. (Original) A method as recited in claim 27, wherein said affixing operates, for each of the instances, to mount the controller die on the memory die, whereby the controller die is stacked on the memory die.

30. (Original) A method as recited in claim 27, wherein said method further comprises:

removing the removable tape after said encapsulating and before said singulating.

31. (Original) A method as recited in claim 30, wherein each of the instances include exposed electrical contacts as part of the leadframe of the respective instance.

32. (Original) A method as recited in claim 31, wherein said method further comprises:

plating the electrical contacts of each of the instances after said removing of the removable tape and before said singulating.

33. (Original) A method as recited in claim 27, wherein said electrically connecting includes at least wire bonding each of the memory die and the controller die to the respective instances of the multi-instance leadframe.

34. (Original) A method as recited in claim 27, wherein said singulating is performed by a laser beam provided by a laser.

35. (Original) A method as recited in claim 27, wherein said singulating is performed by a high pressure water jet.

36. (Original) A method as recited in claim 35, wherein the water jet includes at least water and an abrasive material.

37. (Original) A method as recited in claim 27, wherein the memory cards are molded cards, each of the molded cards having a housing provided by the molding compound without any additional external casing.

38. (Original) A method as recited in claim 27, wherein the memory cards are removable, non-rectangular peripheral cards that provide data storage.

39. (Original) A method as recited in claim 27, wherein said encapsulating operates to encapsulate at least one side of the leadframe having the instances of the memory die and the controller die attached thereto, thereby encapsulating the memory die and the controller die.

40. (Original) A method as recited in claim 27, wherein the non-linear shaping of each of the instances by said singulating is achieved through curvilinear or non-rectangular cutting during said singulating.

41. (Original) A method as recited in claim 40, wherein said method further comprises:

affixing an outer external package about each of the instances after said singulating.

42. (Original) A method for concurrently forming a plurality of memory cards, each of the memory cards including at least a memory die and a controller die, said method comprising:

providing a multi-instance printed circuit board having a plurality of instances;

attaching the memory die with respect to each of the instances;

affixing the controller die with respect to each of the instances;

electrically connecting each of the memory die and the controller die to the respective instances of the multi-instance printed circuit board;

thereafter encapsulating together the instances with a molding compound; and

subsequently singulating each of the instances using at least non-rectangular shaping.

43. (Original) A method as recited in claim 42, wherein said affixing operates, for each of the instances, to mount the controller die on the memory die, whereby the controller die is stacked on the memory die.

44. (Original) A method as recited in claim 43, wherein, for each of the instances, the memory die is mounted on the printed circuit board.

45. (Original) A method as recited in claim 42, wherein each of the instances include exposed electrical contacts on the printed circuit board.

46. (Original) A method as recited in claim 42, wherein said electrically connecting includes at least wire bonding each of the memory die and the controller die to the respective instances of the multi-instance printed circuit board.
47. (Original) A method as recited in claim 42, wherein said singulating is performed by a laser beam provided by a laser.
48. (Original) A method as recited in claim 42, wherein said singulating through use of a laser beam and water.
49. (Original) A method as recited in claim 42, wherein said singulating is performed by a high pressure water jet.
50. (Original) A method as recited in claim 49, wherein the water jet includes at least water and an abrasive material.
51. (Original) A method as recited in claim 42, wherein the memory cards are molded cards, each of the molded cards having a housing provided by the molding compound without any additional external casing.
52. (Original) A method as recited in claim 42, wherein the memory cards are removable peripheral cards that provide data storage.
53. (Original) A method as recited in claim 42, wherein said encapsulating operates to encapsulate at least one side of the printed circuit board having the instances of the memory die and the controller die attached thereto, thereby encapsulating the memory die and the controller die.

54. (Original) A method as recited in claim 42, wherein said method further comprises:
affixing an outer external package about each of the instances after said singulating.

55. (Previously Presented) A method as recited in claim 16, wherein said method further comprises:

applying a coating to each of the memory cards after said singulating.

56. (Previously Presented) A method as recited in claim 16, wherein said method further comprises:

affixing an outer casing to each of the memory cards after said singulating.

57. (Previously Presented) A method as recited in claim 1, wherein said method further comprises:

applying a coating to each of the instances after said singulating.

REMARKS

In the Office Action, the Examiner objected claims 17 and 18 due to informalities, and allowed claims 1-16, 20, 21 and 27-57. In addition, the Examiner also indicated that claims 17 and 18 would be allowable if the informalities were overcome.

Claims 17 and 18 have been amended to overcome the informalities. Claims 1-18, 20, 21 and 27-57 remain pending.

It is submitted that the application is in condition or allowance. Reconsideration of the application and an early Notice of Allowance are earnestly solicited.

If there are any issues remaining which the Examiner believes could be resolved through either a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number listed below.

Applicant hereby petitions for an extension of time which may be required to maintain the pendency of this case, and any required fee for such extension or any further fee required in connection with the filing of this Amendment is to be charged to Deposit Account No. 50-0388.

Respectfully submitted,
BEYER WEAVER & THOMAS, LLP



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Reg. No. 32,947

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